

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 February 2005 (24.02.2005)

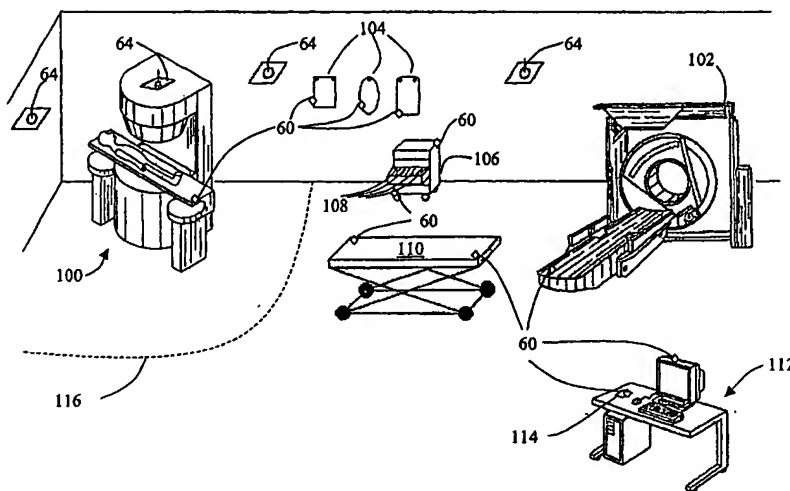
PCT

(10) International Publication Number
WO 2005/017548 A1

- (51) International Patent Classification⁷: **G01R 33/28** (74) Common Representative: **KONINKLIJKE PHILIPS ELECTRONICS N.V.**; c/o LUNDIN, Thomas, M., 595 Miner Road, Cleveland, OH 44143 (US).
- (21) International Application Number:
PCT/IB2004/002614
- (22) International Filing Date: 5 August 2004 (05.08.2004) (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/495,605 15 August 2003 (15.08.2003) US
- (71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (71) Applicant (for AE only): **U.S. PHILIPS CORPORATION** [US/US]; 1251 Avenue of the Americas, New York, NY 10510-8001 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **LEUSSLER, Christoph** [DE/NL]; P.O. Box 220, NL-5600 AE Eindhoven (NL).
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: **MRI SYSTEM WITH WIRELESS IDENTIFICATION CAPABILITY**



(57) Abstract: A magnetic resonance apparatus includes a main magnetic field generating assembly (12) located in a magnetic resonance suite generates a substantially spatially constant main magnetic field through at least a portion of a subject in an imaging region. A gradient field generating assembly (16) overlays spatially variant gradient magnetic fields onto the main magnetic field. A radio frequency assembly (22) excites magnetic resonance in dipoles of a subject in the imaging region. A receiver (36) receives magnetic resonance signals from resonating dipoles in the imaging region. Radio frequency transponders (60) are affixed to objects (22, 104, 106, 108, 110, 114) in the magnetic resonance suite. The transponders (60) are interrogated by a reader/writer (62) to determine which coils are in the bore (14) and whether other coils and objects are outside of a safety threshold (116).



WO 2005/017548 A1

BEST AVAILABLE COPY

BEST AVAILABLE COPY



Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.